Medium-Mu Dual Triode

DUODECAR TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings *(Design-Maximum Values)*:

Voltage (AC or DC)	6.3 ± 0.6		volts
Current at heater volts = 6.3	0.900		amp
Peak heater-cathode voltage (Each unit):			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200[a]	max.	volts

Direct Interelectrode Capacitances (Approx.):[b]

	Unit No.1	Unit No.2	
Grid to plate	3.8	5.0	pf
Grid to cathode and heater	2.2	4.0	pf
Plate to cathode and heater	0.48	0.54	pf

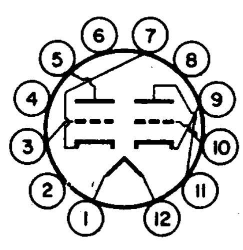
Characteristics, Class A_1 Amplifier:

	Unit No.1	Unit No.2		
Plate Voltage	250	150	250	volts
Grid Voltage	-8	0	-9.5	volts
Amplification Factor	22.5	-	15.4	
Plate Resistance (Approx.)	9000	-	2000	ohms
Transconductance	2500	-	7700	μmhos
Plate Current	8	68[c]	41	ma
Grid Voltage (Approx.) for plate μa = 10	-18	-	-	volts
Grid Voltage (Approx.) for plate μa = 50	-	-	-23	volts

Mechanical:

Operating Position	Any
Type of Cathodes	Coated Unipotential
Maximum Overall Length	2.375"
Seated Length	1.750" to 2.000"
Diameter	1.062" to 1.188"
Bulb	T9
Base	Small-Button Duodecar 12-Pin (JEDEC No.E12-70)
Basing Designation for BOTTOM VIEW	12BM

Pin 1 - Heater
Pin 2 - No Internal Connection
Pin 3 - Grid of Unit No.2
Pin 4 - Same as Pin 2
Pin 5 - Plate of Unit No.2
Pin 6 - Do Not Use
Pin 7 - Cathode of Unit No.2



Pin 8 - Same as Pin 2
Pin 9 - Cathode of Unit No.1
Pin 10 - Grid of Unit No.1
Pin 11 - Plate of Unit No.1
Pin 12 - Heater

VERTICAL-DEFLECTION OSCILLATOR

Values are for Unit No.1

Maximum Ratings, *Design-Maximum Values:*

DC PLATE VOLTAGE	350	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE	400	max.	volts
PLATE DISSIPATION	1	max.	watt

Maximum Circuit Values:

Grid-Circuit Resistance:			
For fixed-bias or cathode-bias operation	2.2	max.	megohms

VERTICAL-DEFLECTION AMPLIFIER

Values are for Unit No.2

Maximum Ratings, *Design-Maximum Values:*

For operation in a 525-line, 30-frame system[d]

DC PLATE VOLTAGE	550	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE[e]	2500	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE	250	max.	volts
CATHODE CURRENT:			
Peak	150	max.	ma
Average	50	max.	ma
PLATE DISSIPATION	10	max.	watts

Maximum Circuit Values:

Grid-Circuit Resistance:			
For fixed-bias operation	2.2	max.	megohms

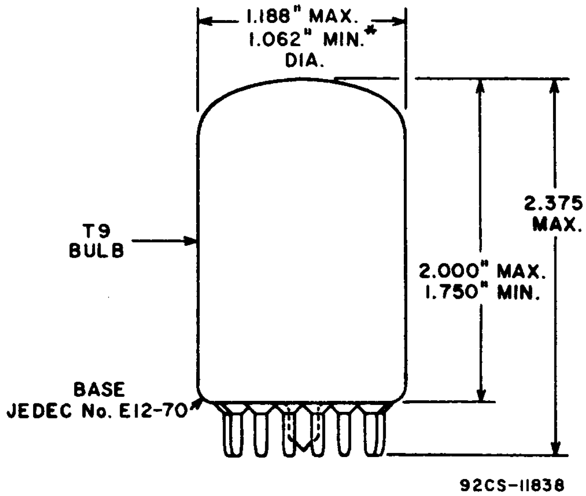
[a] The dc component must not exceed 100 volts.

[b] Without external shield.

[c] This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

[d] As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

[e] This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.



* APPLIES TO MINIMUM DIAMETER EXCEPT IN AREA OF SEAL.